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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/749,972	12/30/2003	Kei-Kang Hung	JLNP093.DIV2	9678
25920	7590	07/14/2004	EXAMINER	
MARTINE & PENILLA, LLP 710 LAKEWAY DRIVE SUITE 170 SUNNYVALE, CA 94085			NADAV, ORI	
			ART UNIT	PAPER NUMBER
			2811	

DATE MAILED: 07/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/749,972	Applicant(s) HUNG ET AL.	
	Examiner ori_nadav	Art Unit 2811	<i>ju</i>

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Drawings

The formal drawings filed on 12/30/2003 are acceptable.

Information Disclosure Statement

If applicant is aware of any relevant prior art, he/she requested to cite it on form PTO-1449 in accordance with the guidelines set forth in M.P.E.P. 609.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-3 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had

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possession of the claimed invention. Figures 3, 4 and 6 depict a first finger width being smaller than said second finger width. However, figures 3, 4 and 6 depict a vertical distance being the closest distance between the first and second fingers and guard ring 31. The first finger has the same vertical distance to guard ring 31 as that of the second finger. Therefore, there is no support in the specification for a first finger being closer to the guard ring than a second finger, as recited in claim 1.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-3 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claimed limitations of a first finger being closer to the guard ring than a second finger, as recited in claim 1, are unclear in which respect the first finger is being closer to the guard ring than a second finger.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3, insofar as in compliance with 35 U.S.C. 112, are rejected under 35 U.S.C. 103(a) as being unpatentable over Liu et al. (6,455,898) or Hsu et al. (6,057,579) in view of Applicant Admitted Prior Art (AAPA).

Liu et al. teach in figure 5A and related text a semiconductor device with ESD protection comprising: a MOS transistor array formed in a region and comprising a first finger (the gate of MOS transistor 508) and a second finger (the gate of MOS transistor 510), wherein the first finger width is smaller than said second finger width (column 6, lines 42-46).

Hsu et al. teach in figure 5 and related text a semiconductor device with ESD protection comprising: a MOS transistor array formed in a region and comprising a first finger (the gate of MOS transistor 404) and a second finger (the gate of MOS transistor 404a), wherein the first finger width is smaller than said second finger width.

Liu et al. and Hsu et al. do not teach a region surrounded by a guard ring such that the first finger is closer to the guard ring than the second finger.

AAPA teaches in figure 1A and related text a MOS transistor array surrounded by a guard ring 11. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to surround Liu et al. and Hsu et al.'s MOS transistors with a guard ring, as taught by AAPA, in order to improve the device characteristics by providing better protection for the device. Note that it is conventional to surround a MOS transistor array by a guard ring, in order to provide better protection for the device, of which official notice is taken.

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Regarding the claimed limitation of a first finger being closer to the guard ring than a second finger, this limitation is inherent in the device of Liu et al. or Hsu et al. and AAPA, because the first finger (the gate of the first MOS transistor) of Liu et al. and Hsu et al. is located closer to the left part of guard ring than the second finger (the gate of the second MOS transistor).

Regarding claims 2-3, Liu et al. and Hsu et al. teach the fingers (gates) of the first and second MOS transistors are electrically connected together to ground.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Reference C is cited as being related to different channel widths.

Papers related to this application may be submitted to Technology center (TC) 2800 by facsimile transmission. Papers should be faxed to TC 2800 via the TC 2800 Fax center located in Crystal Plaza 4, room 4-C23. The faxing of such papers must conform with the notice published in the Official Gazette, 1096 OG 30 (November 15, 1989). The Group 2811 Fax Center number is (703) 308-7722

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and 308-7724. The Group 2811 Fax Center is to be used only for papers related to Group 2811 applications.

Any inquiry concerning this communication or any earlier communication from the Examiner should be directed to *Examiner Nadav* whose telephone number is **(571) 272-1660**. The Examiner is in the Office generally between the hours of 7 AM to 4 PM (Eastern Standard Time) Monday through Friday.

Any inquiry of a general nature or relating to the status of this application should be directed to the **Technology Center Receptionists** whose telephone number is **308-0956**



O.N.
7/9/04

ORI NADAV
PATENT EXAMINER
TECHNOLOGY CENTER 2800